

Annual Report

2006-2007



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Our Mission:

To encourage economic development and job growth in New Jersey by:

- promoting strong ties between industry and universities in order to accelerate commercialization of technology
- supporting entrepreneurial technology businesses in areas of strategic importance to the state and
- strengthening research collaborations among universities to create new potential for increased federal funding and private investment.

New Jersey Commission on Science and Technology

Established in 1985, the New Jersey Commission on Science and Technology is responsible for the development and oversight of policies and programs promoting science and technology research and entrepreneurship in New Jersey. Commission members include business leaders, university leaders, scientists, the Secretary of Commerce and Economic Growth Commission, the Commissioner of Education, a representative of the Governor and four legislators.

Commission Members

DECEMBER 2006

James Coleman Jr., Acting Chairman

Mr. Coleman, Jr. is chairman of International Matex Tank Terminals (IMTT). IMTT's terminals serve North America's dynamic distribution centers at both ends of the Mississippi Valley, at both ends of the Great Lakes/St. Lawrence River System, on the Atlantic Coast in New York and Virginia, and on the Pacific Coast. Mr. Coleman, Jr. also served as acting chair of NJCST from June 2003 to October 2004.

Mario M. Casabona, President of Casabona Ventures, a company formed to provide early-stage venture capital to small technology driven start-up companies. Prior to this recent venture, Mr. Casabona was the founder and CEO of Electro-Radiation Inc. (ERI), a developer of Navigation and Communications technology for the Defense Industry. ERI was acquired by Honeywell International, where he continues to provide management and technical guidance as its Director of Electronic Protection. Mr. Casabona, Chairman Emeritus of the Research and Development Council of New Jersey, also serves on several industry advisory boards. He graduated from Fairleigh Dickinson University with a BS in Electrical Engineering and holds 11 national and international patents - with 7 pending - in the field of Satellite based Navigation and Communications.

Peter Eisenberger, Ph.D., professor, Earth and Environmental Sciences Department, Columbia University and former head of the Princeton Materials Institute, Princeton University. Dr. Eisenberger is co-chair of the National Advisory Board for a new science center in Tucson, Arizona. A fellow of the AAAS and the APS, he is leading an effort to devise a new way for professional societies to advise Congress.

Richard Goldberg, Vice President of Public Affairs for DRS Technologies, Inc., one of the nations leading defense contractors, headquartered in Parsippany, New Jersey. He was formerly the president of the Commerce and Industry Association of New Jersey and the former Executive Director of the American Electronics Association (AeA), and vice president of the Association of Food Industries, Inc. Mr. Goldberg's areas of expertise include media and government relations, business development, and marketing communications.

S. Yee Lee, Ph.D., Chairman and CEO of Yee Enterprise Solutions, Inc. (YES). Dr. Lee is a former AT&T Vice President of Software Systems, and was named an AT&T Fellow in 2001 for his long standing exemplary contributions. Dr. Lee holds a Master's and Ph.D. in Electrical Engineering and Computer Science from the University of Pennsylvania. He has completed Advanced Management and Executive MBA programs at the Harvard University School of Business. Dr. Lee recently formed partnerships with Global Consultants, Inc. (GCI), SunWah Group and the

University of Minnesota promoting US-China relations regarding IT training, health care and technology development. Dr. Lee received the Outstanding Lifetime Achievement Award in 2006 from the New Jersey Chinese American Chamber of Commerce.

Gregory Olsen, Ph.D., President, GH0 Ventures in Princeton, NJ where he manages his "angel" investments. Dr. Olsen received a BS Physics (1966), a BSEE and MS Physics (1968) from Fairleigh Dickinson University, then was awarded a Ph.D. in Materials Science from the University of Virginia (1971). Dr. Olsen co-founded EPITAXX, a fiber-optic detector manufacturer in 1984. It was sold in 1990 for \$12 million. He then co-founded Sensors Unlimited, a near-infrared camera manufacturer in 1992. Sensors was sold to Finisar Corp. for \$600 million in 2000, repurchased by the management team in 2002 for \$6 million, and then sold again to Goodrich, Corp. in 2005 for \$60 million. In October, 2005 Dr. Olsen became the third private citizen to travel to the International Space Station where he performed more than 150 orbits of the earth and logged almost 4 million miles of weightless travel during his 10 days in space.

Senator Robert W. Singer represents District 30, including parts of Burlington, Mercer, Monmouth and Ocean counties.

Assemblyman Upendra J. Chivukula represents District 17, including parts of Middlesex and Somerset counties.

Virginia Bauer, Secretary and Chief Executive Officer of the New Jersey Commerce and Economic Growth Commission.

Lucille Davy, Commissioner of the New Jersey Department of Education

Angie McGuire, Governor's Office

Robert Altenkirch Ph.D., President, New Jersey Institute of Technology. Under Dr. Altenkirch's leadership, NJIT has developed a focused strategic plan emphasizing national prominence for a number of NJIT's academic and research strengths, recruiting high-achieving students from diverse backgrounds, increasing research funding, improving campus quality of life, and community engagement.

Harold Shapiro Ph.D., President Emeritus, Princeton University; University of Michigan. Dr. Shapiro served as Princeton University's 18th president and as chair of the President's Council on Bioethics for President Clinton. He is chair of the New Jersey Stem Cell Ethics Advisory Panel.

New Jersey Commission on Science and Technology & The Edison Innovation Fund

Supporting and Encouraging the Front-End of Innovation in New Jersey

The Commission on Science and Technology is working in partnership with the Economic Development Authority (EDA) and the Commission on Higher Education (CHE) to implement the vision of the Edison Innovation Fund by supporting the following:

- R&D at New Jersey's research universities, particularly to enhance federal funding in areas of importance to the State of New Jersey
- Technology transfer to help universities and companies develop the commercial potential of their research
- Acceleration of the commercialization of technology

The Commission's current programming is focused on investments in the areas of strategic importance outlined in the Governor's Economic Growth Strategy including: life sciences, nanotechnology, stem cell research, renewable energy, and communications technologies. In 2006, the Commission awarded more than \$5.2 million directly to 39 early-stage technology companies in New Jersey. The Commission will continue to make strategic investments through Edison Innovation Funding to ensure New Jersey's position as a leader in innovation and research. Investments include:

- **Centers of Excellence** – The Commission has committed \$1 million in FY 07 to advance planning for Centers of Excellence. The Stem Cell Institute of New Jersey and NJ Nano @ RU are the first Centers of Excellence under the Edison Innovation Fund.
- **Technology Fellowships** – The Commission currently supports 23 technology fellows through increased investment in the Technology Fellowship Program. This funding implements the technology transfer initiative of the Edison Innovation Fund by transferring ideas to New Jersey labs through pairing talented young scientists with New Jersey early-stage technology companies.
- **Edison Innovation R&D Fund** – The Commission's Edison Innovation R&D Fund, formerly the Entrepreneurial Partnering Fund, provides grants to early stage companies doing research and development in partnership with New Jersey Universities. This program will soon include an additional element of equity-like financing provided to companies by the NJEDA.

Technology Fellowships

Supporting High Tech Research



Anamika Patel, Ph.D. (NJIT) a second-year fellow working at **Energy Photovoltaics** using the expertise she gained at NJIT's ion beam and thin film research lab to develop thin film modules that will make solar energy more efficient and economical.

The Commission currently supports 23 talented PhD graduates of New Jersey universities working in New Jersey technology companies through the New Jersey Technology Fellowship Program. The Technology Fellowship Program provides awards of \$75,000 for first year fellowships and \$85,000 for second-year fellowships through Edison Innovation funding. Current fellows are advancing company-based research in renewable energy, stem cell research, cancer treatments, nanotechnology, among others.

The Technology Fellowship Program helps companies meet their goals by providing them with skilled researchers. Through the fellowship program, New Jersey companies gain talented individuals and valuable collaborations with university research labs throughout the state.

"The program is not only allowing PBL to benefit from the new ideas of the postdoc joining us, but it is also expediting our conversion of novel ideas into marketable or licensable technologies."

— DR. BILL CLARK, PRESIDENT, PESTKA BIOMEDICAL LABORATORIES

Eduardo Perez, Ph.D. (UMDNJ & Rutgers University) working at **Signum Biosciences** to characterize compounds that may be used as new anti-inflammatory agents that will compete with or supplement those currently in use. "The fellowship allows me to continue to grow as a scientist while gaining valuable industrial experience," said Dr. Perez.



Meghan Tierney, Ph.D. (Rutgers University) working at **ProFACT Proteomics** to develop protocols for ProFact's patented SeraFILE™ system with the optimum goal of using this technology to identify differences in diseased and non-diseased protein samples. "This fellowship advances my career by diversifying my research skills while working on a project that is scientifically and socially relevant," said Dr. Tierney.

Technology Fellowships: Creating Collaborations

Nazieh Masoud, Ph.D. (*Stevens Institute of Technology*) a second-year fellow working at **UV Solutions, Inc.** using nanotechnology to develop cost-effective ultraviolet light sources for medical therapeutics, curing of adhesives and other applications. "This program enables fellows to utilize the scientific knowledge that they gained through their doctoral studies and transfer it to industry," said Dr. Masoud.



"The program not only provides the mechanism for companies like F3 to bring on specific, needed talent, but also creates a link between us and Rutgers University."

– KEN ROSENBAUM, GENERAL MANAGER,
FORM FIT AND FUNCTION ENGINEERING

"Research is the foundation of innovation. This program will benefit New Jersey through high technology jobs and new medical treatments."

– MICHAEL SCHER, PH.D. (UMDNJ) WORKING AT ROSETTA GENOMICS.

James Nehlsen, Ph.D. (*Princeton University*) a second-year fellow working at **Exelus, Inc.** focussing on a new, environmentally friendly technique to produce hydrogen and other consumer products. "The fellowship lowers the barriers for engineering and science graduates to join small companies and stimulates the growth of those companies by providing them with skilled researchers," said Dr. Nehlsen.

Kelly Corcoran, Ph.D. (*UMDNJ*) working at **Chromocell Corporation** using their patented Chromovert technology to sort out stem cells for use in future clinical applications. "This program is the best of both worlds. I have the opportunity to work in a company and gain industry experience while continuing to challenge myself by coming up with new ideas and running my own projects," said Dr. Corcoran.

The Technology Fellowship program is dedicated to the memory of Dr. William Oliver Baker, a founding member of the Commission on Science and Technology. Dr. Baker was president of Bell Laboratories from 1973-1979 when Bell Labs scientists twice received the Nobel Prize in physics.



Nanotechnology: Small Elements Big Ideas

Nanotechnology is the revolutionary science of creating and building materials approximately the size of a few atoms. Nanotechnology is expected to impact most types of manufactured goods over the next 10 years by being able to control the development of materials at the molecular level.

The Commission represented New Jersey in a partnership with Pennsylvania and Delaware called the Mid-Atlantic Nanotechnology Alliance (MANA). MANA commissioned *Getting to the Future First: A Strategic Roadmap for Advancing Nanotechnology in the Mid-Atlantic Region*, a study assessing regional assets and potential for nanotech development.

The report found New Jersey well positioned to become a leader in applications of nano-related technologies through strategic collaborations among universities and industry.

As a strategic priority of the Edison Innovation Fund, the Commission promotes nanotechnology research through its involvement with the Greater Garden State Nanotechnology Alliance, an organization of researchers at university and industry labs, as well as targeted investments in nanotechnology Centers of Excellence such as NJ Nano @ RU.

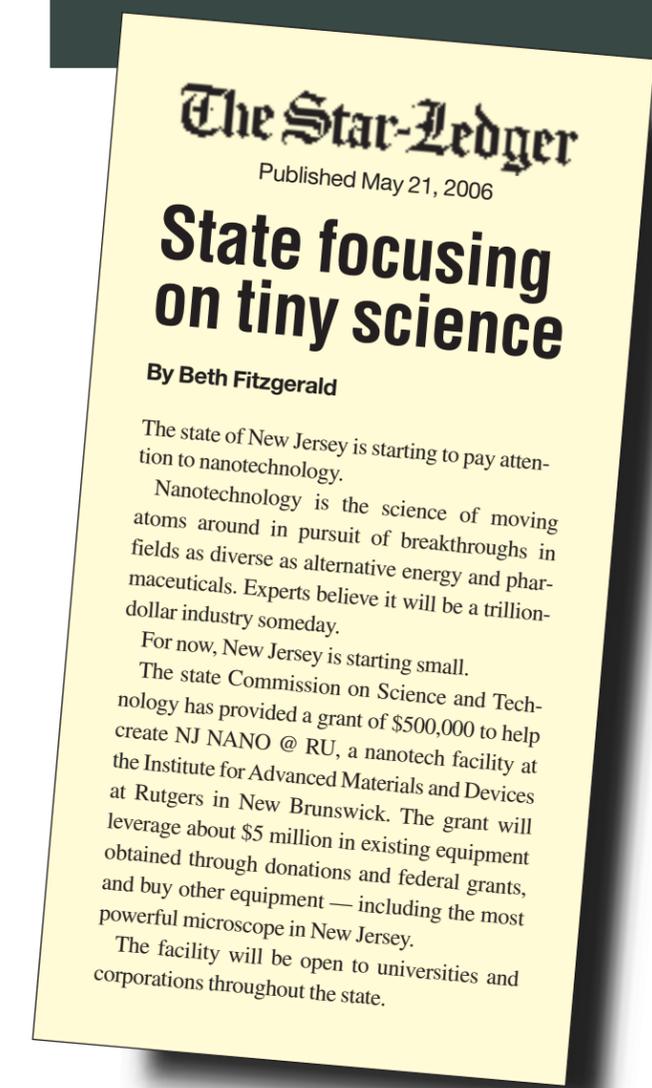
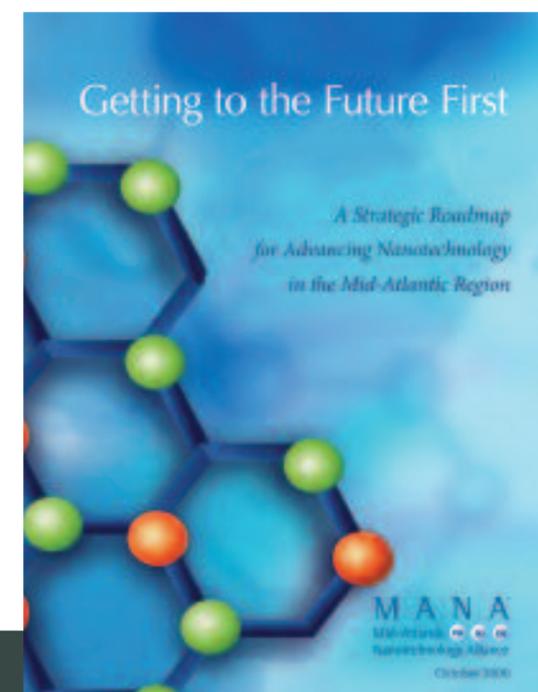
NJ Nano @ RU

To begin development of a center of excellence under the Edison Innovation Fund, the Commission on Science and Technology invested \$500,000 in the creation of NJ Nano @ RU, providing nanotechnology infrastructure at Rutgers University in the Institute for Advanced Materials. This investment allows collaborative use of the facility, which includes equipment and expert support, by academic and industrial labs in New Jersey.

NJ Nano @ RU leverages over \$5 million in existing state-of-the-art equipment obtained through donations and federal grants and allows for the acquisition of new equipment, including the current installation of the most powerful microscope in New Jersey. All of the equipment at NJ Nano @ RU will be accessible to universities and corporations throughout the state.

"NJ Nano @ RU will be the portal for industry, academics and others to interact with the expertise and equipment located at Rutgers," said Seth Tropper, Consultant, Technology Commercialization at Rutgers University. "NJ Nano @ RU will significantly increase visibility and therefore provide more opportunity for technology advancements."

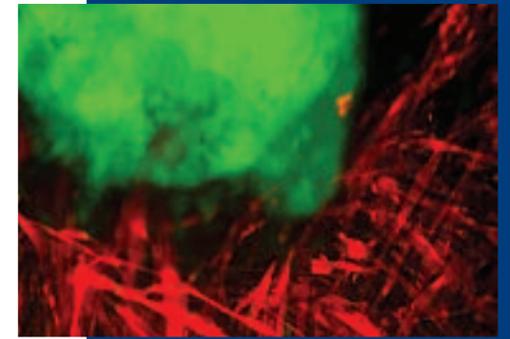
The NJ Nano @ RU center of excellence will contribute to the understanding of nanoscale phenomena and facilitate the commercial application of this knowledge. NJ Nano @ RU will be used by petrochemical companies, the pharmaceutical industry, the biotechnology sector, the microelectronic industry and energy enterprises.



"This initiative is intended to become a major signature program for the university and the state, attracting investment, spurring economic development in the region and improving the lives of the citizens of New Jersey. We are grateful to the Commission on Science and Technology for providing this key funding."

— RUTGERS UNIVERSITY PRESIDENT RICHARD McCORMICK

At the Forefront of Stem Cell Research



In FY 2006, the Commission awarded \$5 million in Stem Cell Research Grants to 17 research teams at university, non-profit institution and corporate labs in New Jersey. These awards included the first publicly funded grants for research using human embryonic stem cells. Grant recipients are seeking to answer critical questions about how stem cells work in hopes of finding treatments for many diseases and disabilities.

Training Scientists to Work with Human Embryonic Stem Cells

At Rutgers University, **Dr. Rick Cohen** has created the Stem Cell Resource Center to educate and train current New Jersey stem cell scientists in the field of human embryonic stem cell research. Through a New Jersey Stem Cell Research Grant, Dr. Cohen is providing four intensive, practical hands-on human embryonic stem cell training courses. Participants will be trained in techniques to grow human embryonic stem cells as well as different techniques to analyze cells. "My hope is that this course will stimulate an interest in working with human embryonic stem cells," said Dr. Cohen.



University and Industry Working Together

The New Jersey Stem Cell Research Grant Program supports a valuable collaborative research partnership studying a stem cell-based approach for treating central nervous system conditions such as multiple sclerosis and brain trauma.



Dr. Randall McKinnon of UMDNJ and Dr. Mo Heidarani of **Celgene Cellular Therapeutics**, the world's fifth largest biotech company, have teamed up to determine if stem cells from human placenta can generate neural support cells of the brain. "This NJCST award has facilitated a unique collaboration between industry and academic laboratories," said Dr. McKinnon.

Controlling Cancer

At Princeton University, **Dr. Kateri Moore** continues her research to gain an understanding of how healthy bone marrow stem cells self-renew, which should provide valuable insights into how to control cancer stem cells.



"The New Jersey Stem Cell Research Grant has been fundamental in my ability to do research," said Dr. Moore. Dr. Moore will present her findings to date at the Stem Cell Microenvironmental Niche Keystone in March 2007.

Advancing Front-End Research

Demonstrating New Jersey's resolve to advance stem cell research and clinical applications, Governor Corzine committed \$10 million of State funding for Stem Cell Research Grants in December 2006. This investment builds on a foundation created in 2005 when New Jersey became the first state in the nation to award public grants for research using human embryonic stem cells.

The Stem Cell Research Grant Program will support the full range of stem cell research, including basic research, translational research and clinical research. Up to \$3 million will be awarded to New Jersey academic, not-for-profit and for-profit institutions for individual

research grants. The Commission on Science and Technology will seek to fund proposals that demonstrate a means for translation to patient treatment.

With the continued limitations placed on research by strict federal stem cell research guidelines, the State of New Jersey will facilitate a greater range of human embryonic stem cell research through its new core facilities grants. Up to \$7 million is available for grants which will enable researchers to propose several related projects and have common research equipment and tools that are financially separate from their federally financed work.

Stem Cell Research Facilities

Governor Corzine has positioned New Jersey as a world leader in the fast-growing field of stem cell research with the signing of recent legislation (A-2828/S-1471) to provide \$270 million to build and equip five stem cell and biomedical research facilities in New Jersey.

This groundbreaking legislation will create facilities, equipment and resources for research that will result in cures for devastating

diseases and injuries. These facilities will create an infrastructure that will attract the world's best researchers and take advantage of New Jersey's successful biotechnology and pharmaceutical industry.

Stem Cell and Biomedical Research Facilities Initiative

- \$150 million for the Stem Cell Institute of New Jersey in New Brunswick
- \$50 million for stem cell facilities at the New Jersey Institute of Technology in Newark
- \$50 million for biomedical research facilities located at Rutgers-Camden
- \$10 million for blood collection facilities operated by Elie Katz Umbilical Cord Blood Program
- \$10 million for the Garden State Cancer Center



Edison Innovation R&D Fund

Advancing Front-End Research

The Edison Innovation R&D Fund, formerly the Entrepreneurial Partnering Fund (EPF), is a unique program that provides promising early-stage technology companies funding to advance their front-end research and an opportunity to form valuable partnerships with New Jersey universities.

The Commission offers technology companies \$100,000 to \$500,000 for proof-of-concept research and development activities. Companies are encouraged to partner with a New Jersey university, company or institution.

In its first year, the fund awarded nearly \$2.5 million to seven companies leveraging an additional \$2.1 million in matching funds for the funded projects. Work being performed by grant recipients ranges from identifying new drugs to slow the progression of Alzheimer's disease to the development of technology for improving solar panel efficiency.

The Edison Innovation R&D Fund will soon include equity-like financing as we work in partnership with the New Jersey Economic Development Authority.

Helping Americans Sleep

LinguaFlex, Inc. has developed technology that will potentially improve the lives of approximately 20 million Americans who suffer from sleep apnea, a disorder that causes sleepiness, depression, life threatening hypertension and heart disease.

The LinguaFlex "Lift" is a small implant that will be inserted into the back of the mouth to prevent the airway from being blocked during sleep. Rutgers University's Department of Biomedical Engineering will help LinguaFlex by providing specialized techniques that test the device under conditions similar to those the device will encounter in long term clinical use.

"LinguaFlex chose to stay in New Jersey because we believe that this grant is an example of the State's genuine commitment to support high tech start up companies," said Dr. Ira Sanders, Chairman and Chief Science Officer of LinguaFlex, Inc. "We plan to continue to grow in New Jersey using manufacturing facilities here and bringing new jobs and tax revenue into the Garden State."

Can Coffee Cure Diseases?

Moderate to heavy coffee consumption has been associated with a reduced incidence of Diabetes, Parkinson's, Alzheimer's and other diseases. A major thrust of Signum Biosciences is identifying the botanical agents responsible for this effect in hopes of developing dietary supplements and pharmaceutical leads for these diseases.

After licensing intellectual property from Princeton University, Signum has forged a collaborative partnership with three labs at Princeton. "The EPF has accelerated our research by allowing Signum to take advantage of extraordinary facilities and science at Princeton University," said Dr. Gregory Stock, President of Signum Biosciences.

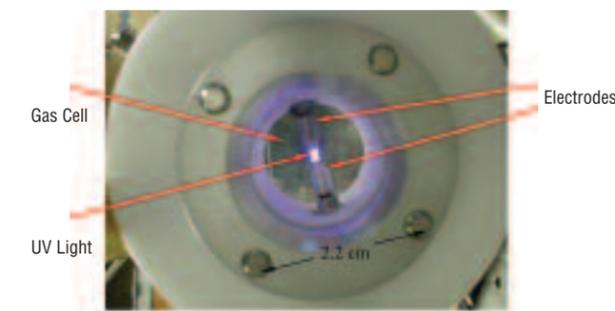
Since receiving an EPF award, potential investors have demonstrated an increased interest in Signum. The Commission's \$500,000 investment has generated \$520,000 in matching funds and helped stimulate \$1.8 million in private financing.

"The EPF program anchors the best young technology companies to New Jersey at a time where there are serious efforts to lure these companies elsewhere," said Dr. Stock. "This program is critical, for it is nurturing the next generation of life science companies in New Jersey."

Nanotechnology Assists the Creation of Efficient UV Light Source

Through an EPF award, UV Solutions is using nanotechnology to produce an innovative and efficient ultraviolet light source for surface treatment of materials, paints and adhesives. In addition, the company plans to extend its technology to the treatment of skin diseases such as psoriasis and acne.

UV Solutions, which has licensed its technology from Rutgers University, has developed an even stronger collaboration since receiving the EPF award. Through daily interaction with Rutgers professors and students, UV Solutions has completed prototype development of its ultraviolet point light enabling the company to receive a contract from MIT to refine the technology for use in cancer diagnostics.



RF UV point lamp- UV Solutions Inc.

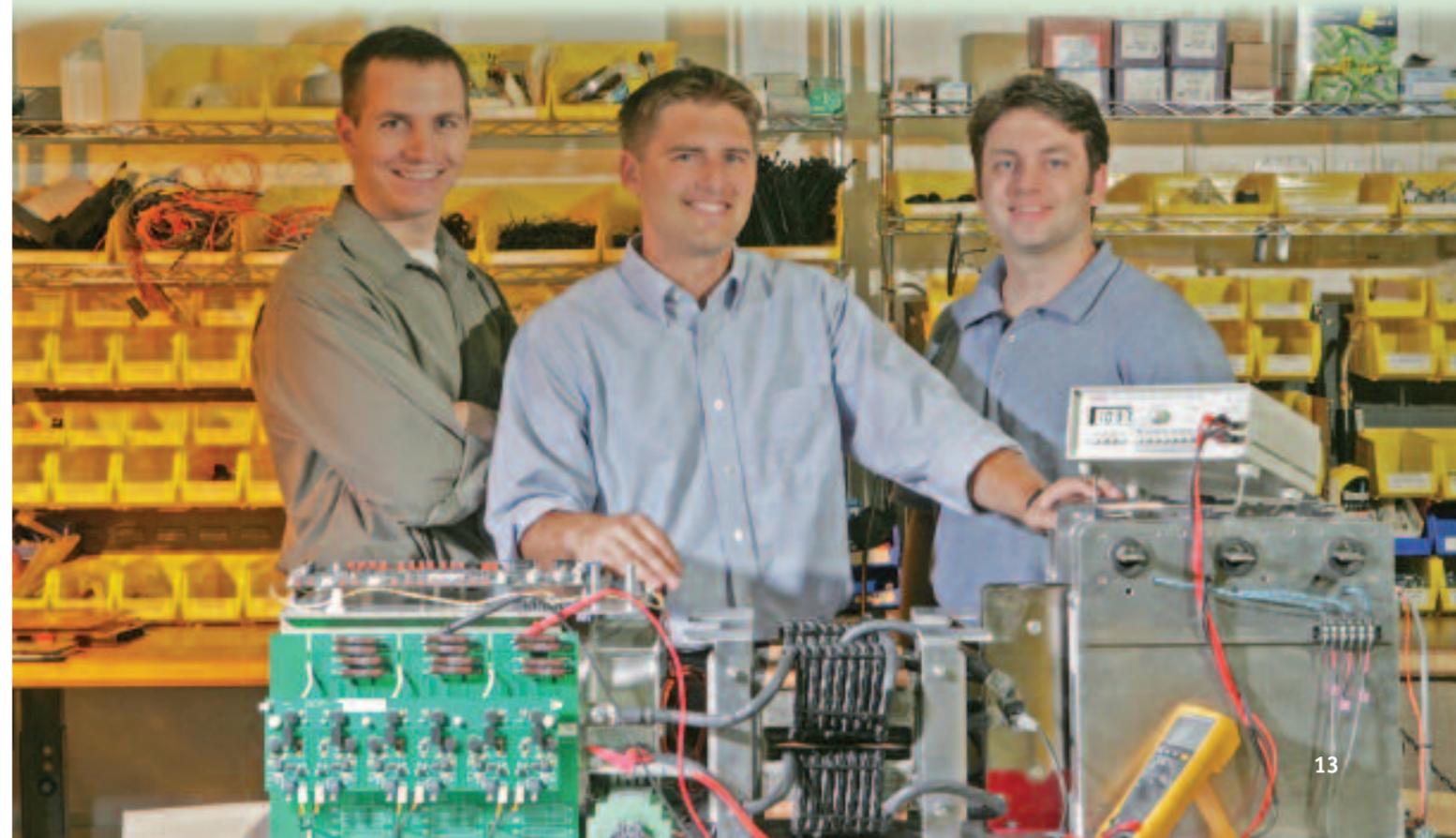
Young Company Advancing Renewable Energy

Three young Princeton University graduates developed a winning business plan into Princeton Power Systems, a successful technology company focused on renewable energy.

The Entrepreneurial Partnering Fund provided Princeton Power Systems the opportunity to collaborate with Princeton University to develop control software and design guidelines to make solar energy less expensive and more efficient. Through this partnership, an array of solar panels will be installed at the University's Engineering Quadrangle to help develop energy efficient power conver-

sion products that will ultimately be used in residential solar installations.

Erik Limpaecher, co-founder and Lead Controls Engineer for Princeton Power Systems, believes this award allows Princeton Power to support New Jersey's goal of advancing renewable energy by leveraging the physical and personnel resources of the university. "This will save a tremendous amount of time and money and allow us to develop more advanced technologies for renewable energy applications," said Mr. Limpaecher.



Technology Incubators: Nurturing High Tech Businesses

Incubators are innovative, entrepreneurial enclaves that nurture New Jersey's next generation of tech-based businesses. According to the National Business Incubation Association, start-up companies in incubators have a higher success rate than those developing without the critical business assistance provided by incubators.

In FY 2006 the Commission supported 12 technology incubators in 10 locations throughout the state. Commission funding exclusively supports programs for the development of tenant technology companies. Services include legal and marketing counseling, expert seminars, entrepre-

neurs-in-residence, collaborative technical programs, seed fund programs providing pre-"angel" financial support, among others.

FY 2006 Incubator Metrics

- NJ Incubators support 230 residential companies
- 80% of NJ Incubator clients are technology companies
- NJ incubators provide nearly 1000 jobs
- NJ incubator companies have revenues of over \$150 million
- NJ incubators provide services for nearly 300 additional companies
- New Jersey incubators graduated 23 firms in 2006



The High Technology Small Business Incubator at Burlington County College.

Incubator Seed Fund: Sowing Milestones

In 2006 the Commission launched the Incubator Seed Fund, a new grant program specifically designed to support the research and development activities of technology-based incubator companies. The Incubator Seed Fund provides, on a competitive basis, funds to assist companies with critical business needs necessary to advance innovations to the marketplace and thereby create new technology jobs. The Commission funding compliments the daily mentoring and business support companies receive as incubator clients. Awarded projects include proof-of-concept research, product development, prototyping, patent applications, manufacturing trials and critical data generation.

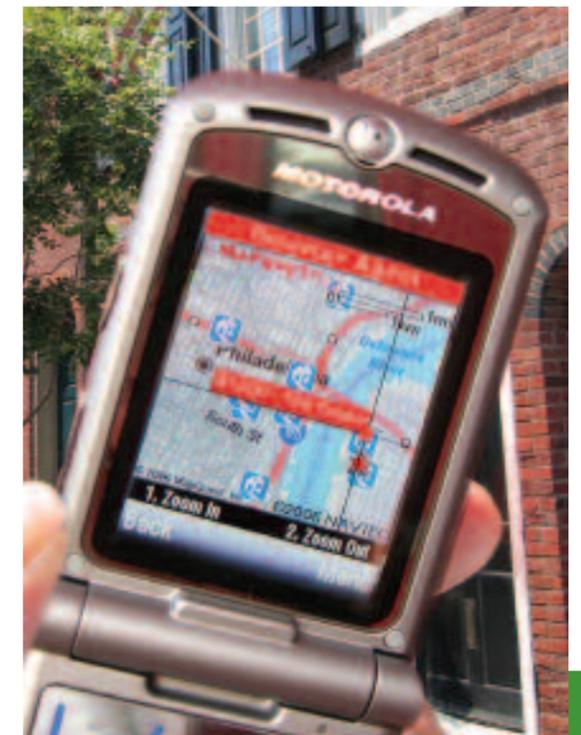
Commission Support Helps Incubator Company Succeed

Smarter Agent wants to make real estate data available anytime, anywhere. With its new mobile location based services (LBS) application, Smarter Agent enables the delivery of real estate information to mobile devices and the internet as never before.

As an ACIN incubator resident, Smarter Agent benefits on a daily basis from services specifically tailored to young start-up companies. However, when the company was approaching the launch of their technology, *Recently Sold Homes*, by Smarter Agent on SPRINT-Nextel, they needed additional resources to assure company success.

The Commission's Incubator Seed Fund Grant provided the necessary funds to enhance the transition to market which facilitated company growth. The successful product launch was covered by television, magazines and newspapers across the country including, *The Today Show*, *NPR*, *CNBC*, *CN8* and the *Los Angeles Times* and *Chicago Tribune*. Due to its initial success, Smarter Agent is looking to launch their next product this coming year.

"The Incubator Seed Fund program helped us exceed our launch expectations for our first commercial product," said Brad Blumberg, CEO Smarter Agent. "Consumers learned about the application and downloaded it. Just as important, the wireless industry learned about Smarter Agent and we entered into many strategic partnerships."



Technology Incubator Network

Rutgers EcoComplex
Bordentown, 609 499-3600

**Food Innovation & Research
and Extension Center**
Bridgeton, 856 459-1125

**The High Technology Small
Business Incubator**
Burlington County College,
609 894-9311 x2800

ACIN-High Tech Incubator
Camden, 856 614-5415

Rutgers-Camden High Tech Incubator
Camden, 856 479-9044

**Picatinny Technology Innovation
Center**
Dover, 973 442-6400

**Business Development Incubator
at New Jersey City University**
Jersey City, 201 200-2313

**NJIT Enterprise Development
Centers I, II, III**
Newark, 973 643-4063

The Technology Centre of New Jersey
North Brunswick, 732 729-0022

Trenton Business & Technology Center
Trenton, 609 396-8801

Small Business Innovation Research Bridge Grant

SBIR Bridge Grants Sustain Tech Companies

The Commission recognizes the need to bring increased federal research dollars to New Jersey technology companies. The Small Business Innovation Research Grant (SBIR) provides federal funding to companies developing technologies that meet a specific federal agency need.

The Commission has boosted federal funding by awarding \$50,000 to early-stage firms struggling to bridge the gap between phases of federal SBIR awards, which can often extend over five or six months. In 2006 the Commission invested \$300,000 in six companies leveraging \$4.5 million in federal research funding.

MaXentric Technologies

MaXentric Technologies developed its 60 GHz "WiFi" technology code to allow US Navy personnel the ability to use wireless devices on top of NAVY warships without disclosing their location to enemies.

The Commission's SBIR Bridge Grant funding came at a critical juncture for MaXentric. After receiving a \$70,000 Phase I award, MaXentric was invited to apply for a Phase II award. After winning the award, they expected to receive \$797,000 in August of 2006, however it was four months until the funding actually arrived.

Without the Bridge Grant, MaXentric may not have been able to make the necessary improvements and preparations in anticipation of their contract, including hiring two additional employees. "Thanks to this grant, MaXentric had a fantastic 2006," said Kamran Mahbobi, Managing Director of MaXentric. "Now we are waiting for two additional Phase II contract awards in 2007."

SBIR Training: Boosting Federal Funding

The Commission offers a series of training sessions throughout the year to help entrepreneurs gain the necessary tools to develop winning SBIR/STTR proposals. The training sessions provide entrepreneurs the know-how necessary to receive federal dollars for their research activities.



Training Breeds Success

With a declining telecom industry and a 50 percent reduction in sales and staff, **Datatek Applications** was searching for new business opportunities for their network protocol products.

Datatek executives participated in the Commission's SBIR Training Sessions. It was here they gained the necessary information and coaching to pursue the \$130,000 SBIR Phase I award they received from the US Army in December of 2005.

"The sessions are valuable because you have the opportunity to interact with people who have written winning proposals," said Alan Stultz, Business Development Manager of Datatek. "You get to ask the 'how to' questions."

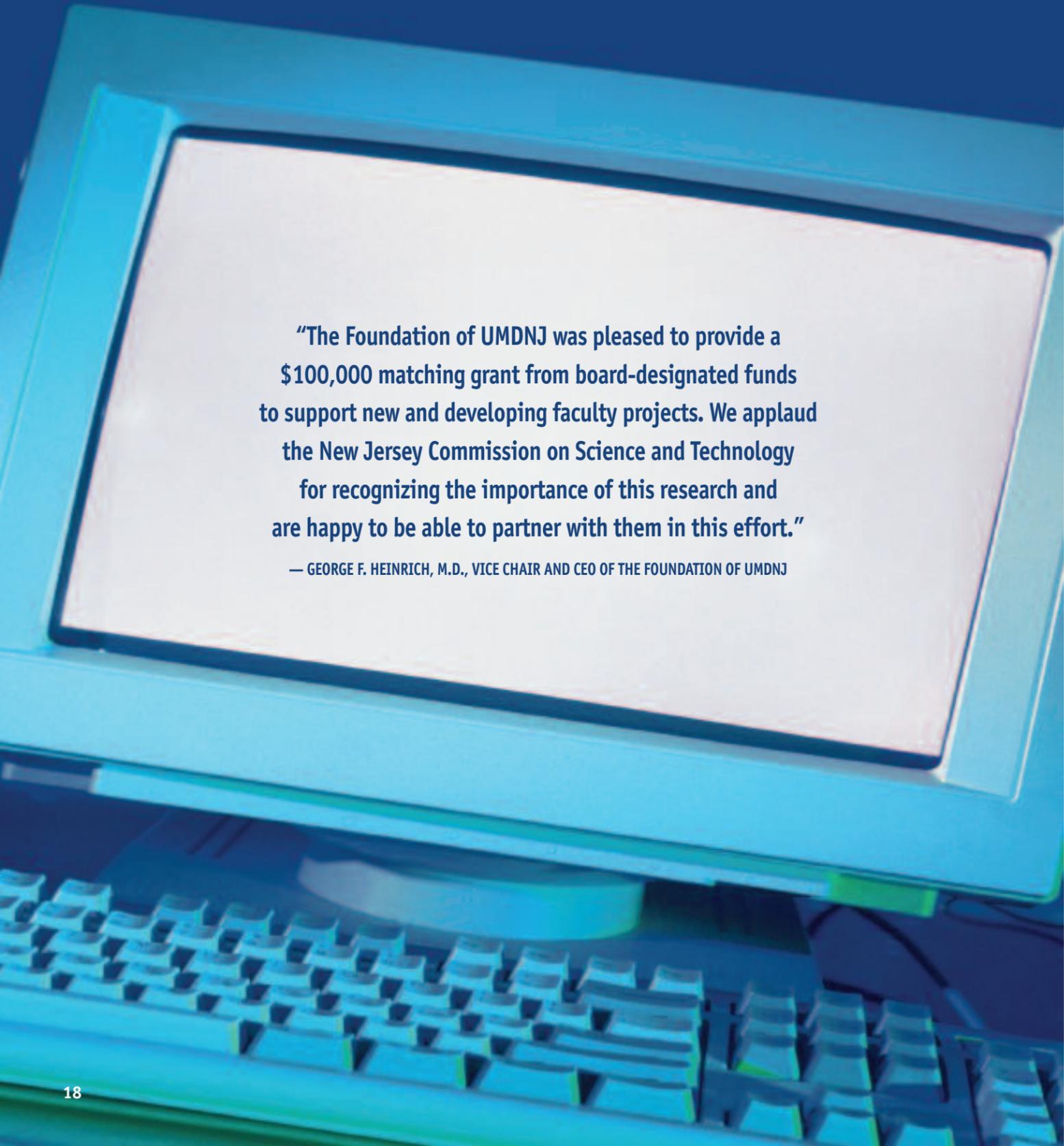
Attendees of the full day training sessions receive a free proposal review from the renowned Greenwood Consulting Group. It was this feedback that allowed Datatek to fine-tune their proposal into a successful Phase II award of \$730,000 which they received in June 2006.

Their success with the SBIR program has encouraged Datatek to focus on continued work with the US Army and Ft. Monmouth. They hope to build on their SBIR success through increased usage of their IPv6 technology. "The training process was invaluable," said Mr. Stultz. "I wish there were more small companies and entrepreneurs who took advantage of it."

"As a recipient of an \$800,000 research grant from the National Institutes of Health, I was over-whelmed by how to prepare my Indirect Cost Rate proposal. I participated in one of the SBIR Cost Proposal Workshops and was gratified by how much the presentation clarified the issues for me and subsequently the proposal was accepted by the NIH."

— BRUCE A. JOHNSON, PRESIDENT, ONE MOON SCIENTIFIC, INC.

Cultivating University Innovation



“The Foundation of UMDNJ was pleased to provide a \$100,000 matching grant from board-designated funds to support new and developing faculty projects. We applaud the New Jersey Commission on Science and Technology for recognizing the importance of this research and are happy to be able to partner with them in this effort.”

— GEORGE F. HEINRICH, M.D., VICE CHAIR AND CEO OF THE FOUNDATION OF UMDNJ

The Commission on Science and Technology provides funding to New Jersey research universities through the Commercializing University Intellectual Property program to develop new products, create new businesses and generate new quality jobs in New Jersey. The Commission allocated \$1.85 million in FY 06 to facilitate the transfer of university innovations to the private sector. Commission funding was provided for programs at New Jersey Institute of Technology, Princeton University, Rutgers University and the University of Medicine and Dentistry. Technology transfer programming at universities includes “gap funding”, new company initiatives, venture presentations, and increased licensing and patent activity.

“The grant will supplement our ongoing technical efforts at no cost to mPhase. We are grateful to the New Jersey Commission on Science and Technology and Rutgers Service-to-Industry Program for this significant validation of the nanobattery project.”

— STEVE SIMON, EXECUTIVE VP-R&D, MPHASE, RECIPIENT OF A RUTGERS UNIVERSITY IP AWARD

Creating New Technology Companies

- Commission funding is responsible for the creation of 10 new companies in FY 06 based on university technologies from Princeton, Rutgers and UMDNJ.
- More than six additional companies are currently in the process of formation.

Supporting Projects for Increased Licensing/Options Activity

- Commission funding supported 47 projects in FY 06 to provide additional development for technologies in order to obtain commercial interest.
- Technology transfer activities have significantly increased at NJIT since Commission funding began. License & Option agreements more than doubled, invention disclosures increased by 48%, patent applications increased by 38% and licensing income has increased more than 8 times.
- UMDNJ used Commission funding to bolster technology assessment and licensing activity. As a result, compared to 2005, invention disclosures increased 32%, number of options & licenses increased 25% and the number of new university start-ups has tripled.

Universities Invest in Their Own Technologies

- The Success of the Commission’s University IP Program has influenced participating universities to invest money in their own technologies through this program.
- Princeton University received so many quality applications that they invested \$200,000 in matching funds in order to award additional grants in 2006 alone.
- The Foundation of UMDNJ provided \$100,000 in matching funds to support new and developing faculty projects.

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